Amendment to the Claims

Claims 1 – 13 (Cancelled).

14. (Currently Amended) A method of measuring a blood flow rate, the method comprising:

(a) passing a guide wire through an indicator lumen in an elongate catheter body to pass a portion of the guide wire through a terminal port of the indicator lumen;

(b) passing [[the]] an indicator through the indicator lumen to pass from the elongate catheter body through the terminal port and an injection port intermediate the terminal port and a proximal end of the catheter body; [[and]]

(c) distinguishing an amount of the indicator passing through the terminal port from an amount of the indicator passing through the injection port; and

[[(c)]](d) calculating the blood flow rate as a function of the amount ~~passage~~ of the indicator passing through the terminal port.

Claim 15 (Cancelled).

16. (Previously Presented) The method of Claim 14, further comprising passing the guide wire through a reduced cross sectional area of the indicator lumen.

17. (Previously Presented) The method of Claim 14, further comprising passing the indicator through the indicator lumen to contact a portion of the guide wire.

18. (Previously Presented) The method of Claim 14, further comprising passing the guide wire through a reduced cross sectional area of the indicator lumen to increase a flow of the indicator through the injection port.

19. (Previously Presented) The method of Claim 14, wherein calculating the blood flow rate comprises compensating for a volume of the indicator passing through the terminal port.

20. (Currently Amended) The method of Claim 14, wherein the calculated blood flow rate is described by a relationship $Q = \frac{k(T_b - T_i) \cdot V(1-a)}{S}$, where [[Q]] Q is [[a]] the calculated blood flow rate, [[k]] k is a coefficient related to thermal capacity of a measured flow and the indicator, [[T_b]] T_b is a temperature of a measured flow prior to injection of the indicator, [[T_i]] T_i is a temperature of the indicator prior to entering the measured flow, [[V]] V is a volume of the indicator, [[S]] S is an area under a temperature versus time curve resulting from a mixing of the indicator, and [[a]] a is a portion of the indicator passing through the terminal port, the calculated blood flow rate being a value provided by an appropriate selection of k, T_b, T_i, V, S, and a.

21. (Withdrawn-Previously Presented) The method of Claim 14, wherein calculating the blood flow rate comprises compensating for a thermal effect of the indicator passing through the terminal port.

22. (Withdrawn-Currently Amended) The method of Claim 14, wherein calculating the blood flow rate comprises compensating for a thermal effect of the indicator passing through the terminal port corresponding to the relationship $Q = \frac{k(T_{b-}T_i)\cdot V(1-a)}{(S_m - S_{in})}$, where [[Q]] $\underline{Q}$ is a blood flow rate, [[k]] $\underline{k}$ is a coefficient related to thermal capacity of a measured flow and the indicator, [[T_b]] $\underline{T_b}$ is the temperature of the measured flow prior to injection, [[T_i]] $\underline{T_i}$ is the temperature of the indicator prior to entering the measured flow, [[V]] $\underline{V}$ is the volume of the indicator, [[S_m]] $\underline{S_m}$ is the total area under the temperature versus time curve resulting from the mixing of the indicator, [[S_{in}]] $\underline{S_{in}}$ is the part of the area under the dilution curve related to a cooling thermal change of a sensor inside the catheter body and [[a]] $\underline{a}$ is the portion of the indicator passing through the terminal port, the calculated blood flow rate being a value provided by an appropriate selection of k, T_b, T_i, V, S_m, S_{in} and a.

Claims 23 – 27 (Cancelled).

28. (Currently Amended) The method of Claim 14, further comprising sensing the indicator intermediate the terminal port and the injection port.

29. (Previously Presented) A method of measuring a blood flow rate, comprising:

(a) passing a guide wire through an indicator lumen in an elongate catheter body to pass a portion of the guide wire through a terminal port of the indicator lumen;

(b) passing **[[**the**]]** an indicator through the indicator lumen to pass from the elongate catheter body through the terminal port and an injection port intermediate the terminal port and a proximal end of the catheter body;

(c) sensing the indicator intermediate the terminal port and the injection port along a direction of blood flow; and

(d) calculating the blood flow rate based on passage of the indicator through the terminal port.

30. (New) A method of measuring a blood flow rate, the method comprising:

(a) passing a guide wire through an indicator lumen in an elongate catheter body to pass a portion of the guide wire through a terminal port of the indicator lumen;

(b) passing an indicator through the indicator lumen to pass from the elongate catheter body through the terminal port and an injection port intermediate the terminal port and a proximal end of the catheter body; and

(c) calculating the blood flow rate as a function of a total volume of the indicator and a portion of the total volume passing through the terminal port.